Solutions
Wksht #1

DAY 5

Name _____

1) $(0,-2)$ parallel to $3x-y=0$

$-y=-3x$

$y=3x$

$m=3$

$(0,-2)$

$y=3x+-2$

$-3x+y=-2$

or $3x-y=2$

2) $(0,5)$ parallel to $x+3y=12$

$3y=-x+12$

$y=-\frac{1}{3}x+4$

$m=-\frac{1}{3}$

$(0,5)$

$y=-\frac{1}{3}x+5$

$3\left(\frac{1}{3}x+y=5\right)$

$x+3y=15$

3) $(-1,3)$ parallel to $3x+5y=15$

$5y=-3x+15$

$y=\frac{-3}{5}x+3$

$m=\frac{-3}{5}$

$(-1,3)$

$\frac{-3}{5}=\frac{y-3}{x+1}$

$5(y-3)=-3(x+1)$

$5y-15=-3x-3$

$3x+5y=12$

4) $(-3,-2)$ perpendicular to $3x-4y=12$

$-4y=3x+12$

$y=\frac{3}{4}x+-3$

$m=-\frac{4}{3}$

$(-3,-2)$

$\frac{-4}{3}=\frac{y+2}{x+3}$

$3(y+2)=-4(x+3)$

$3y+6=-4x+-12$

$4x+3y=-18$

5) $(2,3)$ parallel to x-axis horizontal line

$m=0$

$0=\frac{y-3}{x-2}$

$0=y-3$

$y=3$

6) $(-5,2)$ parallel to $x=-4$ vertical line

$m=\emptyset$

$\frac{1}{0}=\frac{y-2}{x+5}$

$x+5=0$

$x=-5$

7) $m=2$

$(-3,0)$

$\frac{2}{1}=\frac{y-0}{x+3}$

$2(x+3)=y-0$

$2x+6=y-0$

$2x-y=-6$

8) $(-1,0)$ parallel to y-axis vertical line

$m=\emptyset$

$\frac{1}{0}=\frac{y-0}{x+1}$

$x+1=0$

$x=-1$

9) $(-3,4)$ parallel to line through $(-1,-3)$ $(2,1)$

$m=\frac{1-3}{2--1}=\frac{4}{3}$

$\frac{4}{3}=\frac{y-4}{x+3}$

$4(x+3)=3(y-4)$

$4x+12=3y-12$

$4x-3y=-24$

10) $(2,0)$

$(0,-6)$

$6\left(\frac{x}{2}+\frac{y}{-6}=1\right)$

$3x-1y=6$

11) $(2,-1)$

$x=2$ → vertical line

$y=-1$ → horizontal line

$m=1$ $(2,-1)$

$\frac{1}{1}=\frac{y+1}{x-2}$

$y+1=x-2$

$-x+y=-3$

or $x-y=3$

12) $m=-\frac{7}{5}$

$(6,-2)$

$-\frac{7}{5}=\frac{y+2}{x-6}$

$5(y+2)=-7(x-6)$

$5y+10=-7x+42$

$7x+5y=32$

13) $(-2,-1)(-6,-5)$

$m=\frac{-5-1}{-6--2}=\frac{-4}{-4}=1$

$\frac{1}{1}=\frac{y+1}{x+2}$

$y+1=x+2$

$-x+y=1$ or $x-y=-1$

14) $(-7,0)$

$(0,4)$

$-28\left(\frac{x}{-7}+\frac{y}{4}=1\right)$

$4x+-7y=-28$